

Data Sheet

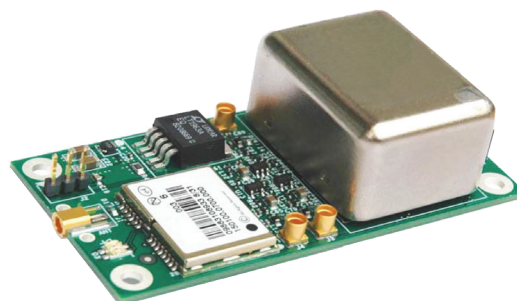
# VIAVI

## FireFly-IIA

FireFly-IIA GPSDO

### Typical Electrical Specifications

Module Specifications	
1 PPS Accuracy	$\pm 30$ ns to UTC RMS (1-Sigma) GPS Locked
Frequency Accuracy	Better than $\pm 3E-010$ after 3 hours operation with GPS locked
Holdover Stability	$< \pm 7$ $\mu$ s over 24 Hour Period @ +25°C (No Motion)
ADEV	
0.1 s to 1000 s	$< 5E-11$ with GPS lock
1 PPS Output (OCXO Flywheel Generated)	LVDS output, RS-232 level output
10 MHz Output	Two LVDS and three Isolated Sine Wave at +13 dBm $\pm 3$ dBm
Distribution Amplifier Port Isolation	
2 MHz	$> 98$ dB
10 MHz	$> 92$ dB
1 GHz	$> 92$ dB
RS-232 Control	Full control via SCPI-99 Control Commands
GPS Frequency	L1, C/A 1574 MHz
GPS Antenna	Passive or Active, 5 V
GPS Receiver	50 Channels, Mobile, GPS, WAAS, EGNOS, MSAS supported, Galileo ready
Sensitivity	
Acquisition	-144 dBm
Tracking	-160 dBm



FireFly-IIA GPSDO

## Module Specifications continued

### TTF

Cold Start	<45 sec
Warm Start	1 sec
Hot Start	1 sec
TTL Alarm Output	GPS Unlock and Hardware Failure indicator
Warm Up Time/Stabilization Time	<10 min at +25°C to 1E-09 accuracy typical
Supply Voltage (Vdd)	12 V DC Nominal ±5%
Power Consumption	<4 W at +25°C
Temperature	
Operating Temperature	0°C to +75°C (-25°C to +75°C extended temp range available)
Storage Temperature	-45°C to +85°C

## Oscillator Specifications

Frequency Output	10 MHz	
10 MHz Retrace	±2E-08 After 1 Hour	
Frequency Stability over Temperature	±2.5E-010	
Output Amplitude	Output Isolation: >80 dB, +13 dBm ±3 dBm, LVDS ±300 mV	
Warm-up Time	<12 min	
Phase Noise	1 Hz	-90 dBc/Hz
	10 Hz	-120 dBc/Hz
	100 Hz	-140 dBc/Hz
	1 kHz	-150 dBc/Hz
	10 kHz	-155 dBc/Hz
Designed Lifetime	>10 years	

NOTE: Specifications subject to change without notice.



Contact Us +1 800 835 2352  
avcomm.sales@viavisolutions.com

To reach the VIAMI office nearest you, visit  
viavisolutions.com/contact.

© 2024 VIAMI Solutions Inc.  
Product specifications and descriptions in this document are subject to change without notice.  
Patented as described at  
viavisolutions.com/patents  
firefly-ii-a-ds-avi-nse-ae  
30194017 900 0124

viavisolutions.com